B) IN THE CLAIMS

1. (Currently Amended) A method for detecting and correcting tube spit comprising the steps of:

providing a CT system generator having a generator output voltage

providing a computer, the computer being in electronic communication with the generator and being capable of detecting fluctuations in generator output voltage;

monitoring the generator output ~~from a CT system~~voltage;

detecting any drops in generator ~~102~~output voltage;

determining whether a tube-spit event occurred ~~104~~; and

if a tube spit occurred, performing tube spit correction ~~110.~~

2. (Currently Amended) The method of claim 1 wherein the generator generates kV or mA waveforms and wherein the step of determining whether a tube spit event has occurred includes the step of monitoring either the generator kV or mA waveforms ~~102.~~

3. (Currently Amended) The method of claim 2 ~~further comprising~~ wherein the step of determining whether a tube spit event occurred further comprises determining whether generator output dropped below a threshold value ~~104.~~

4. (Original) The method of claim 2 further comprising the step of setting a generator output threshold, wherein if the generator output falls below the threshold, a tube spit event is declared.

5. (Currently Amended) The method of claim 4 further comprising the step of determining the number of corrupted views that need to be corrected ~~106.~~

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6. (Previously Presented) The method of claim 5 further comprising the step of providing a warning to an operator if the number of corrupted views exceeds a maximum allowable number of corrupted views.

7. (Previously Presented) The method of claim 6 further comprising the step of storing a history and magnitude of tube spit occurrences.

8. (Previously Presented) The method of claim 7 further comprising the step of notifying the operator and/or service personnel of a need to change the x-ray tube.

9. (Currently Amended) The method of claim 8 further comprising the step of using view interpolation between the two most recent good images to replace the corrupted views in between ~~110~~.

10. (Cancelled)

11. (Cancelled)

12. (Previously Presented) The method of claim 9 wherein the view interpolation is performed in accordance with:

$$P_{ij}(k+n) = ((n_{view}-n)/(n_{view}+1))P_{ij}(k-1) + ((n+1)/(n_{view}+1))P_{ij}(k+n_{view})$$

wherein $P_{ij}(k+n)$ is the projection at channel i, detector row j, view number k+n.

13. (Currently Amended) A processor programmed to:

monitor the generator output from a CT system generator;

monitor the generator output voltage;

detect any drops in generator output voltage

determine whether a tube-spit event occurred; and

if a tube spit occurred, perform tube spit correction.

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14. (Currently Amended) The method of claim 13 wherein the generator generates kV or mA waveforms and wherein the step of determining whether a tube spit event has occurred includes the step of monitoring either the generator kV or mA waveforms ~~102~~.

15. (Cancelled)

16. (Cancelled)

17. (Currently Amended) The method of claim ~~16~~ 14 further comprising the step of determining the number of corrupted views that need to be corrected 106.

18. (Original) The method of claim 17 further comprising the step of providing a warning to the operator if the actual number of corrupted views exceeds the maximum allowable number of corrupted views.

19. (Original) The method of claim 18 further comprising the step of storing the history and magnitude of tube spit occurrences.

20. (Original) The method of claim 18 further comprising the step of notifying the operator and/or service personnel of the need to change the x-ray tube.

21. (Original) The method of claim 19 further comprising the step of using view interpolation between the two most recent good images to replace the corrupted views in between.

22. (Cancelled)

23. (Cancelled)

24. (Original) The method of claim 20 wherein the view interpolation is performed in accordance with:

$$P_{ij}(k+n) = ((n_{view} - n)/(n_{view} + 1))P_{ij}(k-1) + ((n+1)/(n_{view} + 1))P_{ij}(k + n_{view})$$

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wherein $P_{ij}(k+n)$ is the projection at channel i, detector row j, view number k+n.

25. (Currently Amended) A method for detecting and correcting tube spit in a CT system comprising the steps of:

providing an x-ray controller ~~28~~ for monitoring the output of a CT system generator;

providing a computer ~~36~~ to monitor the generator output from a CT system generator, the computer being in electronic communication with the x-ray controller and the CT system generator;

setting a voltage threshold that, if the computer determines that the voltage to the x-ray controller ~~28 falls~~is below the threshold, a tube-spit event is declared;

determining the number of corrupted views ~~106~~;

warning the operator if the maximum number of corrupted views has been exceeded; and

if a tube spit occurred, performing tube spit correction ~~110~~.

26. (Cancelled)

27. (Currently Amended) The method of claim ~~24~~ 25 further comprising the step of storing the history and magnitude of tube spit occurrences.

28. (Currently Amended) The method of claim ~~26~~ 27 further comprising the step of notifying the operator and/or service personnel of the need to change the x-ray tube.

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29. (Currently Amended) The method of claim ~~27~~ 28 further comprising the step of using view interpolation between the two most recent good views to replace the corrupted views in between 110.

30. (Cancelled)

31. (Cancelled)

32. (Currently Amended) The method of claim ~~28~~ 29 wherein the view interpolation is performed in accordance with:

$$P_{ij}(k+n) = ((n_{view}-n)/(n_{view}+1))P_{ij}(k-1) + ((n+1)/(n_{view}+1))P_{ij}(k+n_{view})$$

wherein $P_{ij}(k+n)$ is the projection at channel i, detector row j, view number k+n ~~110~~.

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